

Applicants: Graham P. Allaway et al.  
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Amendments to the Specification:

Please amend the specification as indicated below:

Please replace the paragraph on page 53, line 20 to page 54, line 13 with the following amended paragraph:

-- The HIV-1<sub>JR-FL</sub> envelope sequence was amplified by PCR from the plasmid vector pUCFL112-1 (kindly provided by Dr. I.S.Y. Chen, U.C.L.A., CA) and subcloned into the vector pMA243. Splicing by Overlap Extension (SOEing) was used to create the HIV-1<sub>JR-FL</sub> gp160-dhfr\* gene segment. First, the HIV-1<sub>JR-FL</sub> gp160 sequence was amplified from pUCFL112-1 using primers 1 and 2. Primer 1 (5'--ATT-CAG-AAG-AGT-CGC-CAG-AGT-AGA-AAA-GTT-GTG-GGT-CAC-3'; SEQ ID NO:1) annealed to the 5' end of gp160 gene (5' to the KpnI site) while primer 2 (5'--GAT-GGC-ACC-AAG-CTT-ATC-GAT-CTT-ATA-GCA-AAG-CCC-TTT-CCA-AGC-3'; SEQ ID NO:2) included the antisense strand of the env-dhfr\* intergenic region fused to the complement of the 3' end of the HIV-1<sub>JR-FL</sub> gene. Next, the dhfr\* sequence was amplified from pMA243 using primers 3 and 4. Primer 3 (5'--GAT-CGA-TAA-GCT-TGG-TGC-CAT-CAT-GGT-TCG-ACC-ATT-GAA-CTG-3'; SEQ ID NO:3) included the sense strand of the env-dhfr\* intergenic region fused to the 5' end of the dhfr\* gene while primer 4 (5'--ATG-AGC-CTT-GTG-TGT-GGT-AG-3'; SEQ ID NO:4) annealed within the 3'-LTR region. The two PCR products were pooled, excess primer removed and a second round of PCR was performed in the presence of primers 1 and 4. The final PCR product consisted of the HIV-1<sub>JR-FL</sub> envelope gene fused to the dhfr\* gene. Lastly, the KpnI fragment of pMA243 (encompassing the HIV-1<sub>LAI</sub> envelope and dhfr\* genes) was excised and replaced with the HIV-1<sub>JR-FL</sub> gp160-dhfr\* gene segment. To verify that no mutations were introduced by the

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cloning procedure the KpnI fragment was sequenced using the dideoxy method. The resultant plasmid has been designated pMA243<sub>JR-FL</sub>. -

After page 67 of the specification, please insert the "Sequence Listing" attached hereto as **Exhibit B**.